

# Asia-Pacific Rural Development and Food Security Forum 2022

# **Battling Climate Change** and Transforming Agri-Food Systems

22-24 March 2022



### ASIA-PACIFIC RURAL DEVELOPMENT AND FOOD SECURITY FORUM 2022

#### "Battling Climate Change and Transforming Agri-Food Systems" 22–24 March 2022

# RATIONALE

Food security remains a major concern in Asia and the Pacific, a region in which 60% of the world's population lives. The COVID-19 pandemic is exacerbating pre-existing challenges to food security such as: climate change impacts, disaster risks, shrinking natural resources and degraded environments, changing demographics and labor profiles, and infrastructure deficits, amongst others. These challenges, along with the evolving impacts of COVID-19, underline the need for rethinking of actions to recover, rebuild and reinforce the resilience of food systems. These actions will need to include innovative, nature-based, and integrated solutions which transform and build food system resilience, at the same time as they meet climate change targets and ensure a truly green rural recovery.

# PURPOSE

The Asian Development Bank (ADB) and its partners are organizing the <u>Asia-Pacific Rural</u> <u>Development and Food Security Forum</u> on 22–24 March 2022 to bring together innovators, experts, and thought leaders to:

- Present their ideas on rethinking the future of agriculture amidst complex and evolving challenges;
- Explore new research, innovations, and technologies that can help build nature-positive food systems; and
- Forge partnership and collaborations which will mobilize finance for innovation, research, and business in order to promote food and nutrition security in the Asia and Pacific region

The Leaders' Roundtable and technical sessions will discuss: the future of food and agriculture; digital technologies for agriculture; pathways to sustainable and inclusive food systems; an intersectoral approach to nutrition security; and financing green, resilient, inclusive systems of farming and food production, and other cross-cutting issues.

Three deep-dive sessions will be structured to enable discussion of critical issues on integrated rural-urban development, urban farming as a potential window for fresh and nutritious food, and alternative proteins that help meet growing global demand. A special session on COVID-19 will discuss its impacts on food systems and present ways to effectively respond, recover, and build resilience against future disruptions.



# PROGRAM

2:00–2:02 pm	Introduction Shiulie Ghosh, Director, Aero Productions Ltd.
2:02–3:05 pm	Leaders' Roundtable: The Future of Food and Agriculture
	Climate change, the COVID-19 pandemic, shifts in dietary preferences, and economic and demographic transformations are among the factors influencing the future of food and agriculture. The session will discuss ways to rethink agri-food system transformation, while considering effective models of governance and collaboration, to meet the continuing demand for safe, nutritious, and affordable food. Global leaders will share their perspective on how to build a green, nature-positive, sustainable, and resilient food system.
	Moderator: Shiulie Ghosh, Director, Aero Productions Ltd.
	Welcome address: Qingfeng Zhang, Chief, Rural Development and Food Security (Agriculture) Thematic Group, concurrently OIC, Environment Thematic Group, Sustainable Development and Climate Change Department, Asian Development Bank
	Opening Remarks
	<b>Roberta Casali</b> , Vice-President (Finance and Risk Management), Asian Development Bank
	<b>Donal Brown,</b> Associate Vice-President, Programme Management Department, International Fund for Agricultural Development
	<ul> <li>Panel Discussion</li> <li>1. Shenggen Fan, Chair Professor, China Agricultural University</li> <li>2. Yutaka Arai, Vice-Minister for International Affairs, Ministry of Agriculture, Forestry and Fisheries, Government of Japan</li> <li>3. Cao Đức Phát, Vice Chair, Board of Trustees, International Rice Research Institute</li> </ul>

#### Day 1: 22 March 2022

#### **Technical Session 1: Digital Technology for Agriculture**

The COVID-19 pandemic promoted a surge in digital applications in agriculture, highlighting technology's potential to help modernize agriculture and transform food systems. The session will focus on the role of digital technologies in transforming food systems to offer increased profits for farmers and entrepreneurs in the value chain. Discussions highlight requirements to make digitalization of agriculture happen such as policy interventions, public-private partnerships, financing, infrastructure development, and capacity development, among others.

**Moderator: Thomas Panella,** Director, Environment, Natural Resources & Agriculture Division, East Asia Department, Asian Development Bank



	sion agriculture, e-commerce, digital divide, inclusiveness, digital infrastructure, human etary and regulatory framework for digital agriculture
3:15–3:30 pm	Keynote Address
	Paul Teng Piang Siong, Managing Director & Dean, NIE International Pte Ltd   Nanyang Technological University, Singapore
3:30–4:05 pm	Panel Discussion
	<ul> <li>Panelists</li> <li>1. Vladimir Stankovic, Program Coordinator, International Telecommunication Union</li> <li>2. Elliott Grant, General Manager, X</li> <li>3. Vikas Choudhary, World Bank</li> </ul>
4:05–4:40 pm	<ol> <li>Revisit and Reflect for Revision: Experience Sharing, Voices from Development Practitioners, Startups, Farmers, and Youth</li> <li>1. Don Tan, Director-Corporate Affairs, Pinduoduo Inc.</li> <li>2. Otini Mpinganjira, Program Lead, PxD</li> <li>3. Jawoo Koo, Senior Research Fellow, International Food Policy Research Institute</li> <li>4. Takeshi Ueda, Principal Natural Resources and Agriculture Economist, Asian Development Bank</li> </ol>
4:40–5:05 pm	Q&A and Open Discussion Session Evaluation
5:05–5:15 pm	Synthesis: Day 1 Activities and Sessions
	<ol> <li>Shingo Kimura, Senior Natural Resources and Agriculture Specialist, Asian Development Bank</li> <li>Navin K. Twarakavi, Senior Digital Agriculture Specialist, Asian Development Bank</li> </ol>

### Day 2: 23 March 2022

11:35–11:40 am	Recap: Day 1 Activities and Sessions
	<b>Md Abul Basher</b> , Senior Natural Resources and Agriculture Specialist, Asian Development Bank
Deep Dive 1: T	he Role of Education in Reducing Rural-Urban Divide
development, howe the rural-urban divi growth. Discussion	e-income trap, countries must move from a low-cost to a high-value economy. This ever, has the potential to create disparities including urban-rural inequality. Reducing de is critical for more inclusive growth and necessary for sustainable economic s highlight how a rural-urban integrated development can assume a multidimensional d towards delivering well-being and prosperity to rural dwellers which is comparable to



Moderator: Brajesh Panth, Chief, Education Thematic Group, Asian Development Bank

**Key Issues:** rural and urban income disparity, integrated rural development, human capital investment, rural economic hub, and social and economic welfare

11:40 am- 11:45 am	Welcome Remarks
	<b>Qingfeng Zhang</b> , Chief, Rural Development and Food Security (Agriculture) Thematic Group, concurrently OIC, Environment Thematic Group, Sustainable Development and Climate Change Department, Asian Development Bank
11:45 am – 12:00 pm	Keynote Address
<b>F</b>	<b>Scott Rozelle,</b> Helen F. Farnsworth Senior Fellow and the co-director of the Rural Education Action Program, Freeman Spogli Institute for International Studies, Stanford University
12:00 pm- 12:30	Panel Discussion
pm	Develiete
	Panelists
	<ol> <li>Clarissa Delgado, CEO, Teach for Philippines</li> <li>Md. Saidur Rahman, Professor &amp; Former Head Dept. of Agricultural Economics, Bangladesh Agricultural University.</li> </ol>
	3. Meekyung Shin, Education Specialist, Asian Development Bank
12:30 pm – 12:55 pm	Q&A and Open Discussion
12:55–1:10 pm	Session Evaluation and Break

# Deep Dive 2: Urban/Controlled Environment Farming—New Window for Fresh and Nutritious Food

Urbanization has been rapidly increasing in Asia and the Pacific over the last two decades. With more people now living in cities, the demand for food has become greater in urban areas. Urban farming presents an increasingly viable method of not only enhancing urban food security but also reducing the pressure on traditional agricultural land thereby contributing to a reduction in carbon footprint. Discussions focus on the growth of urban farming as a viable method to produce food, and how new farming approaches, appropriate urban design, and government policies can help propagate this concept.

**Moderator**: **Michiko Katagami**, Principal Natural Resources and Agriculture Specialist, Asian Development Bank

**Key Issues:** increasing urbanization, new farming approaches (vertical farming), controlled-environment agriculture, appropriate urban design (e.g., community gardens, urban wastewater for irrigation, organic waste as compost, etc.), impact on food waste, food security in island nations

1:10–1:25 pm	Keynote Address
	William Den Constant, Denester est of April 14 mer. Division of
	William Dar, Secretary, Department of Agriculture, Philippines



1:25–2:25 pm	Panel Discussion
	<ol> <li>Panelists</li> <li>Sairam Reddy Palicherla, Co-Founder and Chief Scientific Officer, UrbanKisaan Farms Pvt Ltd.</li> <li>Gloria Kraus, Chief Executive Officer, Hollbium</li> <li>Maria Tran, Senior Project Officer (Urban Development), Asian Development Bank</li> </ol>
	Q&A and Open Discussion
2:25–2:40 pm	Session Evaluation and Break

## Technical Session 2: Pathways to Sustainable and Inclusive Food Systems

Climate change and resource-intensive agricultural practices are causing stress and risks to the environment, affecting food production and its value chains. The session will emphasize the benefits of climate-smart approaches and practices across crop, fish and livestock production considering nature-based solutions and the One Health approach. Discussions will focus on innovations, on-the-ground experiences, and lessons learned, including feminization of agriculture and youth empowerment.

**Moderator**: **Jiangfeng Zhang**, Director, Environment, Natural Resources & Agriculture Division, Southeast Asia Department, Asian Development Bank

**Key Issues**: climate-smart agriculture, incentivization of climate-friendly production and consumption, fiscal, monetary and regulatory framework for climate-smart agriculture (crop, fish, and livestock subsectors), One Health, and planetary health

2:40–2:50 pm	Opening Remarks
	<b>Bruno Carrasco,</b> Director General, concurrently Chief Compliance Officer, Sustainable Development and Climate Change Department, Asian Development Bank
2:50 – 3:05 pm	Keynote Address
	<b>Louis Verchot,</b> Principal Scientist and Leader of the Land Restoration Group, International Center for Tropical Agriculture
3:05–3:35 pm	Panel Discussion
	<ul> <li>Panelists</li> <li>1. Jean Balie, Director General, International Rice Research Institute</li> <li>2. Sudarshan Dutta, Lead Agronomist, Agoro Carbon Alliance (Yara)</li> <li>3. Samantha Hung, Chief of Gender Equality Thematic Group, Asian Development Bank</li> </ul>
3:35–4:00 pm	Revisit and Reflect for Revision: Sharing of Experiences, Voices from Development Practitioners, Farmers, Youth, and Women



	1. <b>Omer A. Zafar</b> , Principal Natural Resources and Agriculture Specialist, Asian Development Bank
	2. <b>Romina Cavatassi</b> , Lead Economist, International Fund for Agricultural Development
	<ol> <li>Le Hoang Anh, Senior Official, Department of Science Technology and Environment, Ministry of Agriculture and Rural Development</li> </ol>
4:00–4:30 pm	Q&A and Open Discussion
4:30–4:40 pm	Session Evaluation and Break
Technical Ses	sion 3: Intersectoral Approach to Nutrition Security
are needed but difference learned, and case	fit all when addressing the double burden of malnutrition. Cross-sectoral approaches ficult to implement. This session will present on-the-ground experiences, lessons studies on best practices to collectively work together on what can be done in terms of s, regulations, financing, food production innovations, and others to promote nutrition
	in Siddiqi, Director, Environment, Natural Resources & Agriculture Division, Central partment, Asian Development Bank
	le burden of malnutrition, undernutrition, obesity integrated solutions addressing the indernutrition and obesity in developing Asia
4:40–4:55 pm	Keynote Address
4:40–4:55 pm	Keynote Address Mandana Arabi, Vice President, Nutrition International
4:40–4:55 pm 4:55–5:30 pm	
	Mandana Arabi, Vice President, Nutrition International Panel Discussion
•	Mandana Arabi, Vice President, Nutrition International         Panel Discussion         Panelists         1. Ladda Mo-suwan, Professor, Department of Pediatrics, Faculty of Medicine,
	<ul> <li>Mandana Arabi, Vice President, Nutrition International</li> <li>Panel Discussion</li> <li>Panelists</li> <li>1. Ladda Mo-suwan, Professor, Department of Pediatrics, Faculty of Medicine, Prince of Songkla University</li> </ul>
•	<ul> <li>Mandana Arabi, Vice President, Nutrition International</li> <li>Panel Discussion</li> <li>Panelists         <ol> <li>Ladda Mo-suwan, Professor, Department of Pediatrics, Faculty of Medicine, Prince of Songkla University</li> <li>Britta Schumacher, Senior Nutritionist, Regional Bureau for Asia-Pacific (Bangkok), World Food Programme</li> </ol> </li> </ul>
•	<ul> <li>Mandana Arabi, Vice President, Nutrition International</li> <li>Panel Discussion</li> <li>Panelists <ol> <li>Ladda Mo-suwan, Professor, Department of Pediatrics, Faculty of Medicine, Prince of Songkla University</li> <li>Britta Schumacher, Senior Nutritionist, Regional Bureau for Asia-Pacific (Bangkok), World Food Programme</li> <li>Victor Ochieng Owino, Nutrition Specialist, Division of Human Health,</li> </ol> </li> </ul>
	<ul> <li>Mandana Arabi, Vice President, Nutrition International</li> <li>Panel Discussion</li> <li>Panelists         <ol> <li>Ladda Mo-suwan, Professor, Department of Pediatrics, Faculty of Medicine, Prince of Songkla University</li> <li>Britta Schumacher, Senior Nutritionist, Regional Bureau for Asia-Pacific (Bangkok), World Food Programme</li> </ol> </li> </ul>
4:55–5:30 pm	<ul> <li>Mandana Arabi, Vice President, Nutrition International</li> <li>Panel Discussion</li> <li>Panelists <ol> <li>Ladda Mo-suwan, Professor, Department of Pediatrics, Faculty of Medicine, Prince of Songkla University</li> <li>Britta Schumacher, Senior Nutritionist, Regional Bureau for Asia-Pacific (Bangkok), World Food Programme</li> <li>Victor Ochieng Owino, Nutrition Specialist, Division of Human Health, International Atomic Energy Agency</li> <li>Isaac Kofi Bimpong, Plant Breeder / Geneticist, Department of Nuclear</li> </ol> </li> </ul>
4:55–5:30 pm	<ul> <li>Mandana Arabi, Vice President, Nutrition International</li> <li>Panel Discussion</li> <li>Panelists <ol> <li>Ladda Mo-suwan, Professor, Department of Pediatrics, Faculty of Medicine, Prince of Songkla University</li> <li>Britta Schumacher, Senior Nutritionist, Regional Bureau for Asia-Pacific (Bangkok), World Food Programme</li> <li>Victor Ochieng Owino, Nutrition Specialist, Division of Human Health, International Atomic Energy Agency</li> <li>Isaac Kofi Bimpong, Plant Breeder / Geneticist, Department of Nuclear Sciences and Applications</li> </ol> </li> <li>Revisit and Reflect for Revision: Sharing of Experiences, Voices from</li> </ul>
•	<ul> <li>Mandana Arabi, Vice President, Nutrition International</li> <li>Panel Discussion</li> <li>Panelists <ol> <li>Ladda Mo-suwan, Professor, Department of Pediatrics, Faculty of Medicine, Prince of Songkla University</li> <li>Britta Schumacher, Senior Nutritionist, Regional Bureau for Asia-Pacific (Bangkok), World Food Programme</li> <li>Victor Ochieng Owino, Nutrition Specialist, Division of Human Health, International Atomic Energy Agency</li> <li>Isaac Kofi Bimpong, Plant Breeder / Geneticist, Department of Nuclear Sciences and Applications</li> </ol> </li> <li>Revisit and Reflect for Revision: Sharing of Experiences, Voices from Development Practitioners, Consumers, and Women</li> <li>Kaz Maruyama, President &amp; Representative Director, DSM Japan</li> <li>Jody Harris, Lead Expert, World Vegetable Center</li> </ul>



<ol> <li>Narayan Iyer, Senior Natural Resources and Agriculture Specialist (Agribusiness), Asian Development Bank</li> <li>Kazuko Ogasahara, Senior Natural Resources and Agriculture Specialist (Health and Nutrition), Asian Development Bank</li> </ol>
 Session Evaluation

#### Day 3: 24 March 2022

11:30–11:35 am	Recap: Day 2 Activities and Sessions
	Sangjun Lee, Natural Resources and Agriculture Specialist, Asian Development Bank
11:35 am–12:35 pm	Special Session: COVID-19 Impacts on Food Systems
	Moderator: Takashi Yamano, Principal Economist, Asian Development Bank
	<b>Keynote Address</b> <b>Aziz Elbehri,</b> Senior Economist and Stream Leader, Agri-food, Rural Development and Socio-economic Policies, Food and Agriculture Organization Regional Office for Asia and the Pacific
	Panelists
	<ol> <li>Yasmin Siddiqi, Director, Central and West Asia Department, Asian Development Bank</li> </ol>
	<ol> <li>Pavit Ramachandran, Country Director, Mongolia Resident Mission, Asian Development Bank</li> </ol>
	<ol> <li>Jalil Pirzada, Director, Institute of the Economy, Analysis and Agriculture Development, Ministry of Agriculture, Tajikistan</li> </ol>
	4. PK Joshi, Former Head, International Food Policy Research Institute
12:35–12:50 pm	Break

#### Deep Dive 3: Alternative Proteins to Meet the Growing Demand

With the pace of global population growth and improvement of dietary habits in emerging countries, protein supply requirements in 2050 will be twice as much as they were in 2005. As a result, the supply of protein will be insufficient as early as 2030. Alternative protein sources – such as plant-based, microbial-based and edible insects – are "eco-friendly" protein sources, offering potential solutions to the global problem of food shortage, over-farming, and depletion of natural resources. Discussions highlight issues related to expanding the consumption of alternative protein sources including consumer acceptance, food allergies, nutritional balance, cost and availability, and relevant regulations.

**Moderator: Kate Jarvis**, Climate Finance Specialist, Agribusiness Investment Team, Private Sector Operations Department, Asian Development Bank

**Key Issues:** GHG emissions, deforestation, water intensity, healthy alternatives, advances in agrifood tech and synthetic biology, price-parity, government initiatives /accelerators, regulatory guidelines



12:50–1:05 pm	Keynote Address
	William Chen, Director, Food Science and Technology Programme, Nanyang Technological University
1:05–2:05 pm	Panel Discussion
	<ul> <li>Panelists</li> <li>1. Alan Shaw, Chief Executive Officer, Calysta</li> <li>2. Varun Deshpande, Good Food Institute</li> <li>3. Neil Ian Lumanlan, Circular Bioeconomy Consultant</li> <li>4. Isabelle Decitre, Founder and CEO, ID Capital</li> </ul>
	Q&A and Open Discussion
	Closing Remarks Martin Lemoine, Principal Investment Specialist, Asian Development Bank
2:05–2:20 pm	Session Evaluation and Break
<b>Technical Sess</b>	sion 4: Financing Green, Resilient and Inclusive Agriculture
ground. This session while emphasizing financing, and com and knowledge sha	promote the implementation and adoption of innovations and technologies on-the- on discusses innovative approaches to mobilizing finances for smallholder farmers the role of multilateral development banks, public development banks, blended munity-led financing, among others. Discussions highlight natural capital financing, aring on green valuation, eco-compensation, and digitizing supply chains. <b>ka</b> , Director, Environment, Natural Resources & Agriculture Division, South Asia
	Development Bank
of multilateral deve	ative financing tools and approaches, cross-country and international experiences, role lopment banks and private sector, blended financing, community-led financing, green re natural capital financing facility
2:20–2:35 pm	Keynote Address
	Gretchen Daily, Bing Professor of Environmental Science, Stanford University
2:35–3:10 pm	Panel Discussion
	<ol> <li>Panelists</li> <li>Qingfeng Zhang, Chief, Rural Development and Food Security (Agriculture) Thematic Group, concurrently OIC, Environment Thematic Group, Sustainable Development and Climate Change Department, Asian Development Bank</li> <li>Piet van Asten, Head Sustainable Production Systems – Coffee, Olam Food Ingredients</li> <li>Joost Zuidberg, Management Board, AGRI3 Fund</li> </ol>



<ul> <li>Reflect and Rethink for Revision: Experience Sharing, Voices from</li> <li>Development Practitioners, Farmers, Youth, and Women</li> <li>1. Kisa Mfalila, Lead Environment &amp; Climate Specialist-Asia &amp; the Pacific Region, International Fund for Agricultural Development</li> <li>2. Stephen Hart, Senior Loan Officer, European Investment Bank</li> <li>3. Arnaud Heckmann, Principal Urban Development Specialist, Asian Development Bank</li> </ul>
Q&A and Open Discussion
Session Evaluation and Break
Knowledge Product Showcase
Moderator: Sungsup Ra, Chief Sector Officer, Sustainable Development and Climate Change Department, Asian Development BankKnowledge Product Showcase
<ol> <li>Shingo Kimura, Senior Natural Resources and Agriculture Specialist, Asian Development Bank; Name of the report: "Financing Sustainable and Resilient Food Systems in Asia and the Pacific".</li> <li>Takeshi Ueda, Principal Natural Resources and Agriculture Economist, Asian Development Bank; Name of the report: "Cambodia Agriculture, Natural Resources, and Rural Development Sector Assessment, Strategy, and Roadmap"</li> </ol>
Break
<ul> <li>Actions and Recommendations</li> <li>Moderator: Qingfeng Zhang, Chief, Rural Development and Food Security (Agriculture) Thematic Group, concurrently OIC, Environment Thematic Group, Sustainable Development and Climate Change Department, Asian Development Bank</li> <li>Panelists         <ol> <li>Yasmin Siddiqi, Director, Central and West Asia Department, Asian Development Bank</li> <li>Thomas Panella, Director, East Asia Department, Asian Development Bank</li> <li>Mukhtor Khamudkhanov, Director, Pacific Department, Asian Development Bank</li> </ol> </li> </ul>
<ol> <li>Martin Lemoine, Head, Agribusiness Investment Unit, Private Sector Operations Department, Asian Development Bank</li> <li>Mio Oka, Director, South Asia Department, Asian Development Bank</li> <li>Jiangfeng Zhang, Director, Southeast Asia Department, Asian Development</li> </ol>



5:50 – 6:05 pm	Closing Remarks and Future Direction Sungsup Ra, Chief Sector Officer, Sustainable Development and Climate Change Department, Asian Development Bank
6:05–6:15 pm	Credits, Note of Appreciation, and Forum Evaluation

